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L11: Entry 15 of 15

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Jul 30, 1998

DERWENT-ACC-NO: 1994-268691

DERWENT-WEEK: 199835

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TITLE: Prepn. of peptide which inhibits angiotensin conversion enzyme - by lactic acid bacterium culture of material with specified tri:peptide sequence

PATENT-ASSIGNEE:

ASSIGNEE

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CODE

CALV

PRIORITY-DATA: 1992JP-0298887 (November 9, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2782153 B2	July 30, 1998		008	C12P021/02
JP 06197786 A	July 19, 1994		008	C12P021/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 2782153B2	November 4, 1993	1993JP-0275790	
JP 2782153B2		JP 6197786	Previous Publ.
JP06197786A	November 4, 1993	1993JP-0275790	

INT-CL (IPC): C07K 3/12; C12P 21/00; C12P 21/02; C12P 39/00; C12P 21/02; C12R 1/225; C12P 21/02; C12R 1/865; C12P 21/00 ; C12R 1/225; C12R 1/865

ABSTRACTED-PUB-NO: JP06197786A

BASIC-ABSTRACT:

To prepare a peptide (I) which inhibits angiotensin conversion enzyme (ACE), a lactic acid bacterium and opt. a yeast are cultured in a medium contg. a peptide (II) and/or a protein (III) and then purified. (I), (II) and (III) Include the sequence Ile-Pro-Pro and/or Val-Pro-Pro.

Pref. purificn. is by centrifugation of the culture and purification of the supernatant.

ADVANTAGE - The method prepares an ACE inhibiting peptide easily at low cost.

In an example, 18 g defatted milk powder in 200 g water was sterilised at 115 deg.C for 20 minutes and cooled to room temp.. 2.0 x 10 power 7/ml of Lactobacillus helveticus JCM-1003 and 2.0 x 10 power 5/ml of Saccharomyces cerevisiae ATCC-9804 were inoculated into it and cultured at 37 deg.C for 24 hrs. to prepare the primary starter. 360 g defatted powder milk in 4 kg water was sterilised at 90 deg.C, cooled, the primary starter was added and it was cultured at 37 deg.C for 24 hrs. to prepare the secondary starter. Sterilised 9.0 kg defatted powder milk in 100 kg water was inoculated with the sec. starter and cultured at 37 deg.C for 24 hrs. to give 112 kg of fermented milk. The content of the peptide (I) in the fermented milk was determined

by HPLC. It contained 3060 mg Val-Pro-Pro and 1960 mg Ile-Pro-Pro. The peptide (I) had an ACE inhibiting activity of 4.5×10^6 U.

CHOSEN-DRAWING: Dwg.0/2

TITLE-TERMS: PREPARATION PEPTIDE INHIBIT ANGIOTENSIN CONVERT ENZYME LACTIC ACID
BACTERIUM CULTURE MATERIAL SPECIFIED TRI PEPTIDE SEQUENCE

DERWENT-CLASS: B04 D16

CPI-CODES: B04-C01; B04-N03B; B14-F02B1; D05-C11;

CHEMICAL-CODES:

Chemical Indexing M2 *01*

Fragmentation Code

F011 F012 F019 F423 F499 H1 H100 H181 H2 H212
J0 J013 J1 J111 J3 J311 J371 M280 M314 M315
M321 M333 M340 M342 M349 M381 M391 M413 M510 M522
M530 M540 M720 M903 M904 N131 N132 N161 N513 P526
P616 Q233 V814 V901 V911

Markush Compounds

199433-17201-P

Chemical Indexing M1 *02*

Fragmentation Code

M423 M720 M903 N131 N132 N161 N513 P526 P616 Q233
V600 V631 V814 V901 V917

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1994-122518